PATENT
Attorney Docket No. 13013US01

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

PATENT APPLICATION OF:

GERARD F. McLEAN and
JEREMY LINDSTROM

SERIAL NO. 09/720,437

INTERNATIONAL APPL'N NO.
PCT/GB99/02073

INTERNATIONAL FILING DATE:
JULY 1, 1999

FOR: A PRINTED CIRCUIT BOARD SEPARATOR FOR AN ELECTROCHEMICAL FUEL CELL

GROUP ART UNIT: _____

EXAMINER: Not yet assigned

CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail, postage prepaid, in an envelope addressed to: Assistant Commissioner for Patents, Washington, D.C. 20231, on this date:

April 10, 2001

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INFORMATION DISCLOSURE STATEMENT

Assistant Commissioner for Patents
Washington, D.C. 20231

Sir:

Applicants submit herewith a copy of each of the following references for consideration in connection with the above application.

U.S. Patent No.	Inventor(s)	Issue Date
4,826,554	McIntyre et al.	05/89
4,988,583	Watkins et al.	01/91
5,108,849	Watkins et al.	04/92
5,252,410	Wilkinson et al.	10/93
5,607,785	Tozawa et al.	03/97

Foreign Document No.	Country	Publication Date
60-101881	Japan	06/85
2 306 540	France	03/76
WO 88/01310	PCT	02/88
38 12 813	Germany	06/89
1-292759	Japan	11/89
5-314999	Japan	11/93
8-50903	Japan	02/96
8-138700	Japan	05/96
WO 97/08766	PCT	03/97
0 785 588	Europe	07/97
9814123.7	Great Britain	07/98

Other Publications	Author	Date
"A Printed Circuit Board Approach to Measuring Current Distribution in a Fuel Cell," *Journal of Applied Electrochemistry 28*	Cleghorn et al.	07/98

The above references are listed on the enclosed Form PTO-1449 entitled "Information Disclosure Citation."

Concise Explanation of the
Relevance of the Cited References

McIntyre et al. U.S. Patent No. 4,826,554 discloses a method for making an improved solid polymer electrolyte electrode using a binder, and a sinuously-formed electrically conductive, hydraulically permeable matrix embedded into the membrane sheet.

Watkins et al. U.S. Patent No. 4,988,583 discloses a fluid flow field plate for use in a solid polymer electrolyte fuel cell. The plate has a single continuous open-faced channel formed in a major surface of the plate. The channel traverses a major central area of the surface in a plurality of passes.

Watkins et al. U.S. Patent No. 5,108,849 discloses fluid flow field plates for use in solid polymer electrolyte fuel cells. The plates include multiple continuous open-faced channels, each of which traverse the central area of the plate surface in a serpentine manner.

Wilkinson et al. U.S. Patent No. 5,252,410 was cited in the Search Report (copy enclosed herewith) issued in connection with British Patent Application No. 9814123.7,

which was relied upon for priority by PCT/International Application No. PCT/GB99/02073, from which the present U.S. application is derived. The Search Report sets forth the relevance of the reference in the view of the British Patent Office.

Tozawa et al. U.S. Patent No. 5,607,785 was cited in the Search Report (copy enclosed herewith) issued in connection with British Patent Application No. 9814123.7, which was relied upon for priority by PCT/International Application No. PCT/GB99/02073, from which the present application is derived. The Search Report sets forth the relevance of the reference in the view of the British Patent Office.

Japanese Patent Publication No. 6-101881 was cited in the International Search Report (copy enclosed herewith) issued in connection with the PCT/International application No. PCT/GB99/02073, from which the present U.S. application is derived. The International Search Report sets forth the relevance of the reference in the view of the International Searching Authority. The applicants have not obtained a full-text English language translation of the Japanese language publication, but are willing to obtain and provide such a translation upon request.

French patent Publication No. 2 306 540 discloses an undulate electrolyte layer fuel cell and technique for construction of a non-planar electrolyte layered molten carbonate fuel cell. The applicants have not obtained a full-text English language translation of the French language publication, but are willing to obtain and provide such a translation upon request.

PCT/International Publication No. WO 88/01310 was cited in the International Search Report (copy enclosed herewith) issued in connection with the PCT/International application, No. PCT/GB99/02073, from which the present U.S. application is derived. The International Search Report sets forth the relevance of the reference in the view of the International Searching Authority.

German Patent Publication No. 38 12 813 discloses an undulate electrolyte layer fuel cell and technique for construction of a non-planar glass electrolyte layer fuel cell. The applicants have not obtained a full-text English language translation of the German language publication, but are willing to obtain and provide such a translation upon request.

Japanese Patent Publication No. 12-92759 discloses undulate layers in a non-planar electrolyte molten carbonate fuel cell and a way of obtaining the non-planar structure. The applicants have not obtained a full-text English language translation of the Japanese language publication, but are willing to obtain and provide such a translation upon request.

Japanese Patent Publication No. 5-314999 was cited in the International Search Report raised in connection with the PCT/International application No. PCT/GB99/02073 (copy attached herewith), from which the present U.S. application is derived. The International Search Report sets forth the relevance of the reference in the view of the International Searching Authority.
The applicants have not obtained a full-text English language translation of the Japanese language publication, but are willing to obtain and provide such a translation upon request.

Japanese Patent Publication No. 8-138700 was cited in the International Search Report raised in connection with the PCT/International application No. PCT/GB99/02073 (copy

attached herewith), from which the present U.S. application is derived. The International Search Report sets forth the relevance of the reference in the view of the International Searching Authority. The applicants have not obtained a full-text English language translation of the Japanese language publication, but are willing to obtain and provide such a translation upon request.

PCT/International Publication No. WO 97/08766 was cited in the Search Report (copy enclosed herewith) issued in connection with British Patent Application No. 9814123.7, which was relied upon for priority by PCT/International Application No. PCT/GB99/02073, from which the present U.S. application is derived. The Search Report sets forth the relevance of the reference in the view of the British Patent Office.

European Patent Application No. 0 785 588 was cited in the Search Report (copy enclosed herewith) issued in connection with British Patent Application No. 9915284.5, which was relied upon for priority by PCT/International Application No. PCT/GB99/02073, from which the present application is derived. The Search Report sets forth the

relevance of the reference in the view of the British Patent Office.

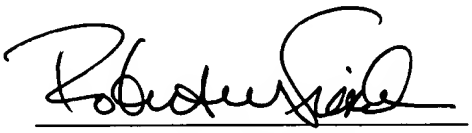
British Patent Application No. 9814123.7 entitled "Electrochemical Fuel Cell Having a Non-Planar Membrane Electrode Assembly" discloses undulate tube cell stack configurations. The undulate MEA fuel cell stack configurations include extended parallel reactant gas conduits that lend themselves to end connection or coupling to supply and exhaust plena for reactant gases.

The 1998 publication by Cleghorn et al. entitled "A Printed Circuit Board Approach to Measuring Current Distribution In a Fuel Cell" was cited in the International Search Report (copy enclosed herewith) issued in connection with the PCT/International application, No. PCT/GB99/02073, from which the present U.S. application is derived. The International Search Report sets forth the relevance of the reference in the view of the International Searching Authority.

This Information Disclosure Statement is being submitted before the receipt of a first Office Action on the merits of the application.

Please charge any fees incurred in connection with this submission to Deposit Account No. 13-0017 in the name of McAndrews, Held & Malloy, Ltd.

Respectfully submitted,



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